IN THE CLAIMS:

Please cancel claims 8-9, 22-23, 25, 27-29, and 34 without prejudice, add new claims 44-51, and amend the claims as follows:

1. (Currently Amended) A fabrication system comprising:

a process chamber;

a heating and cooling chamber including:

a heating mechanism adapted to heat a substrate positioned proximate the heating mechanism;

a ~~coolable member~~ cooling plate spaced from the heating mechanism and adapted to cool a substrate positioned proximate the cooling plate ~~coolable member, the coolable member being coolable by a cooling mechanism~~; and

a transfer mechanism adapted to transfer a substrate between a position proximate the heating mechanism and a position proximate the cooling plate ~~coolable member~~; and

a substrate handler adapted to transfer a substrate within the fabrication system ~~between the process chamber and the heating and cooling chamber~~.

2. (Original) The system of claim 1 wherein the process chamber is adapted to deposit a copper film.

3. (Original) The system of claim 2 wherein the heating and cooling chamber is adapted to perform a copper anneal process.

4. (Original) The system of claim 1 wherein the heating and cooling chamber is adapted to perform a copper anneal process.

5. (Original) The system of claim 1 wherein the heating mechanism comprises a heated substrate support.

6. (Original) The system of claim 5 wherein the heated substrate support is adapted to support a substrate and to heat the supported substrate to a predetermined temperature.

7. (Currently Amended) The system of claim 1 wherein the heating mechanism and the ~~coolable member~~ cooling plate are separated by about 1 to 5 inches.

8-9. (Canceled)

10. (Currently Amended) The system of claim ~~8~~ 1 wherein the cooling plate comprises a plurality of holes adapted to allow a gas to flow through the cooling plate so as to cool the gas.

11. (Currently Amended) The system of claim ~~8~~ 1 wherein the cooling plate may be cooled to between about 5 and 25°C.

12. (Original) The system of claim 1 wherein the transfer mechanism comprises a plurality of wafer lift pins.

13. (Currently Amended) The system of claim 1 wherein the transfer mechanism is adapted to transfer a substrate positioned proximate the heating mechanism to a position of less than about 0.02 inches from the ~~coolable member~~ cooling plate.

14. (Original) The system of claim 1 further comprising a dry gas source coupled to the heating and cooling chamber and adapted to supply a dry gas thereto.

15. (Original) The system of claim 14 wherein the dry gas comprises a dry gas selected from the group consisting of approximately 100% N_2 and approximately 96% or greater N_2 with 4% or less H_2, both having less than about 5 parts per million of O_2.

16. (Currently Amended) The system of claim 14 wherein the ~~coolable member~~ cooling plate comprises a plurality of holes adapted to allow a gas to flow through the ~~coolable member~~ cooling plate so as to cool the gas and wherein the dry gas source is coupled to the ~~coolable member~~ cooling plate and is adapted to supply a dry gas that flows through the plurality of holes of the ~~coolable member~~ cooling plate.

17. (Original) The system of claim 14 further comprising a manifold having a plurality of holes adapted to allow a gas to flow through the manifold so as to diffuse the gas and wherein the dry gas source is coupled to the manifold and is adapted to supply a dry gas that flows through the manifold.

18. (Original) The system of claim 1 further comprising a pump coupled to the heating and cooling chamber and adapted to evacuate the heating and cooling chamber to a predetermined pressure.

19. (Currently Amended) The system of claim 18 having a controller coupled thereto, the controller being programmed to cause the pump to evacuate the heating and cooling chamber to a predetermined pressure during cooling of a substrate with the ~~coolable member~~ cooling plate.

20. (Original) The system of claim 19 wherein the predetermined pressure is between about 20 and 200 Torr.

21. (Original) The system of claim 1 wherein the transfer mechanism is adapted to transfer a substrate between a position proximate the heating mechanism and a position proximate the coolable member by employing single-axis, linear motion.

22-23. (Canceled)

24. (Currently Amended) A method comprising:

(a) providing a fabrication system having:

a process chamber;

a heating and cooling chamber including:

a heating mechanism adapted to heat a substrate positioned proximate the heating mechanism;

a ~~coolable member~~ cooling plate spaced from the heating mechanism and adapted to cool a substrate positioned proximate the cooling plate ~~coolable member, the coolable member being coolable by a cooling mechanism~~; and

a transfer mechanism adapted to transfer a substrate between a position proximate the heating mechanism and a position proximate the ~~coolable member~~ cooling plate; ~~and~~

a substrate handler adapted to transfer a substrate within the fabrication system ~~between the process chamber and the heating and cooling chamber~~;

(b) processing a substrate within the process chamber;

(c) transferring the substrate from the process chamber to the heating and cooling chamber; and

(d) annealing the substrate within the heating and cooling chamber.

25. (Canceled)

26. (Currently Amended) The method of claim ~~25~~ 24 further comprising cooling the substrate within the heating and cooling chamber.

27-29. (Canceled)

30. (Currently Amended) A method of heating and cooling a substrate comprising:

(a) providing a fabrication system having:

a process chamber;

a heating and cooling chamber including:

a heating mechanism adapted to heat a substrate positioned proximate the heating mechanism;

a ~~coolable member~~ cooling plate spaced from the heating mechanism and adapted to cool a substrate positioned proximate the cooling plate ~~coolable member, the coolable member being coolable by a cooling mechanism~~; and

a transfer mechanism adapted to transfer a substrate between a position proximate the heating mechanism and a position proximate the ~~coolable member~~ cooling plate; and

a substrate handler adapted to transfer a substrate within the fabrication system ~~between the process chamber and the heating and cooling chamber~~;

(b) processing the substrate within the process chamber;

(c) transferring the substrate from the process chamber to the heating and cooling chamber;

(d) positioning the substrate at a position proximate the heating mechanism;

(e) heating the substrate with the heating mechanism;

(f) transferring the substrate from the position proximate the heating mechanism to a position proximate the ~~coolable member~~ cooling plate; and

(g) cooling the substrate with the ~~coolable member~~ cooling plate.

31. (Original) The method of claim 30 wherein step (b) comprises performing a copper deposition process.

32. (Original) The method of claim 30 wherein one or more of steps (d)-(g) comprise performing a copper anneal process.

33. (Original) The method of claim 30 wherein positioning the substrate proximate the heating mechanism comprises placing the substrate on a heated substrate support.

34. (Canceled)

35. (Currently Amended) The method of claim 30 wherein transferring the substrate from a position proximate the heating mechanism to a position proximate the ~~coolable member~~ cooling plate comprises transferring the substrate from a position proximate the heating mechanism to a position less than about 0.02 inches from the ~~coolable member~~ cooling plate.

36. (Currently Amended) The method of claim 30 wherein cooling the substrate with the coolable member comprises cooling the substrate with the ~~coolable member~~ cooling plate having a temperature between about 5 and 25°C.

37. (Original) The method of claim 30 further comprising flowing a dry gas into the heating and cooling chamber during at least one of heating and cooling the substrate.

38. (Currently Amended) The method of claim 30 further comprising flowing a dry gas through a plurality of holes within the ~~coolable member~~ cooling plate during cooling the substrate.

39. (Original) The method of claim 30 further comprising evacuating the chamber to a predetermined pressure during cooling the substrate.

40. (Original) The method of claim 39 wherein evacuating the chamber to a predetermined pressure during cooling the substrate comprises evacuating the chamber to between about 20 and 200 Torr during cooling the substrate.

41. (Original) The method of claim 30 wherein heating the substrate with the heating mechanism comprises annealing the substrate.

42. (Original) The method of claim 30 wherein heating the substrate with the heating mechanism comprises degassing the substrate.

43. (Currently Amended) The method of claim 30 wherein transferring the substrate from the position proximate the heating mechanism to the position proximate the ~~coolable member~~ cooling plate comprises transferring the substrate by employing single-axis, linear motion.

44. (New) The system of claim 1, wherein the heating mechanism comprises a heated substrate support adapted to heat the supported substrate at a temperature between about 200-400°C.

45. (New) The system of claim 44, wherein the heating and cooling chamber comprises an inert gas atmosphere comprising nitrogen.

46. (New) The system of claim 45, wherein the inert gas atmosphere has an oxygen concentration of less than about 10 ppm.

47. (New) The system of claim 46, wherein the inert gas atmosphere further comprises 4% or less H_2.

48. (New) The method of claim 24, wherein the substrate is annealed at a temperature between about 200-400°C.

49. (New) The method of claim 48, further comprising maintaining an inert atmosphere comprising nitrogen within the heating and cooling chamber during the annealing.

50. (New) The method of claim 49, wherein the inert atmosphere has an oxygen concentration of less than about 10 ppm.

51. (New) The method of claim 50, wherein the inert atmosphere further comprises 4% or less H_2.